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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,720	04/07/2001	Richard LaPeruta JR.	PU000162	7788

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EXAMINER

PHINNEY, JASON R

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 04/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,720

Applicant(s)

LAPERUTA ET AL.

Examiner

Jason Phinney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendments filed on 1/21/03 have been entered and acknowledged by the Examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,111,347 to Kwak.

Regarding Claim 1, Kwak discloses a tension mask assembly that includes a mask frame (Figure 1, #20c) with a pair of frame members (see long sides of Frame #20c) disposed at opposite ends of the mask frame. Kwak further discloses that there is a plurality of mask strands (#20f) disposed between and affixed to the frame members in such a way as to produce tension in the mask strands (Column 3, Lines 4-6). Takagi finally discloses that there is a third member (Figure 1B, #20d) disposed in a region of the strands intermediate of the two frame members and wherein the third member is closer to the screen than one of the first pair of frame members (see Figure 1B).

Regarding Claims 2 and 3, Kwak further discloses that the third and fourth (Figure 1B, #20d) members are disposed in a direction parallel to the frame members and are offset such that the third is closer to one frame member and the fourth is closer to the other frame member (See Figure 1B).

Regarding Claim 4, etching is a method of manufacture, since this claim is directed to the tension mask assembly the method of manufacture is not germane to the issue of patentability. Kwak discloses the structure of the mask strands (Figure 1, #20f).

Regarding Claim 6, Kwak discloses that the third member is disposed perpendicularly to the mask strands (Figure 1, #20d).

Regarding Claim 7, Kwak discloses that a second pair of frame members should be affixed to the first pair of frame members to form a mask frame having a rectangular shape (see Figure 1 short sides of Frame 20c).

Regarding Claim 8, Kwak discloses that the third and fourth members apply a frictional force to the mask strands (See Figure 1, #20d).

Regarding Claim 9, Kwak discloses that the third member should be attached to the mask strands by an adhesive (Abstract, Lines 9-11), in this case welding, in order to prevent unnecessary movement of the strands.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,111,347 to Kwak in view of U.S. Patent No. 5,406,168 to Takagi.

Kwak discloses all of the limitations of Claim 1 as described above.

Kwak fails to exemplify that the mask strands are connected to each other with an unetched strand material on each end

Takagi teaches that the mask strands can be connected to each other with an unetched strand material on each end (see Figure 1A) in order to form the mask of a single piece of material.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to form the mask strands of Kwak with the unetched portion taught by Takagi in order to form the mask of a single piece of material.

6. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,111,347 to Kwak in view of U.S. Patent No. 6,111,349 to Kuwana.

Regarding Claim 10, Kwak discloses a method for forming a tension mask assembly that includes providing a tension mask with a plurality of mask strands (Figure 1, #20f) disposed

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vertically between two end regions (see long sides of Frame #20c), placing the etched mask strands in contact with a plurality of barrier ridge elements (Figure 1C, #20d), wherein the etched mask strands are not affixed to the plurality of barrier ridge elements (Abstract, Lines 9-11), and affixing the tension mask to a mask frame having vertical and horizontal elements, wherein the barrier ridge elements are closer to the screen than one of the vertical and horizontal elements (See Figure 1).

Regarding Claim 11, Kwak further discloses that the barrier ridge elements should be aligned perpendicular to the mask strands (see Figure 1).

Regarding Claim 12, Kwak further discloses that the mask strands should be aligned perpendicular to the barrier ridge elements and the horizontal elements of the mask frame (see Figure 1)

Kwak fails to exemplify that the plurality of mask strands should be formed by etching.

Kuwana, in an alternate tension mask, teaches that etching can be used to form a plurality of mask strands from a single thin sheet of metal (Column 2, Lines 7-10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the etched mask strands of Kuwana with the method of Kwak in order to form the mask strands from a single thin sheet of metal.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,111,347 to Kwak in view of U.S. Patent No. 6,111,349 to Kuwana as applied to claim 10 above, and further in view of U.S. Patent No. 4,857,027 to Makita.

Kwak in view of Kuwana teaches the method for forming a tension mask assembly of Claim 10 as described above.

Neither Kwak nor Kuwana exemplify that the mask strands should be trimmed flush to the outer portion of the mask frame assembly after the mask strands are affixed to the mask frame.

Makita in an alternate tension mask teaches that the mask strands should be trimmed flush to the outer portion of the mask frame assembly after the mask strands are affixed to the mask frame in order to make it easier to handle and position the mask strands during production and remove any unnecessary material, which allows the final dimensions of the display body surrounding the screen to be smaller (see Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method taught by Kwak in view of Kuwana with the in order to minimize the size of the display body needed for a given size screen.

Response to Arguments

8. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

9. In Regard to the Applicant's contention that the welding is not a type of adhesive, the Examiner respectfully disagrees. According to Webster's Collegiate Dictionary adhesive is defined as tending to adhere, and to adhere is defined as to hold fast as if by gluing, suction, grasping, or fusing. The Examiner thereby contends that welding falls within this limitation.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Phinney whose telephone number is (703) 305-3999. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


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JP

April 14, 2003


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